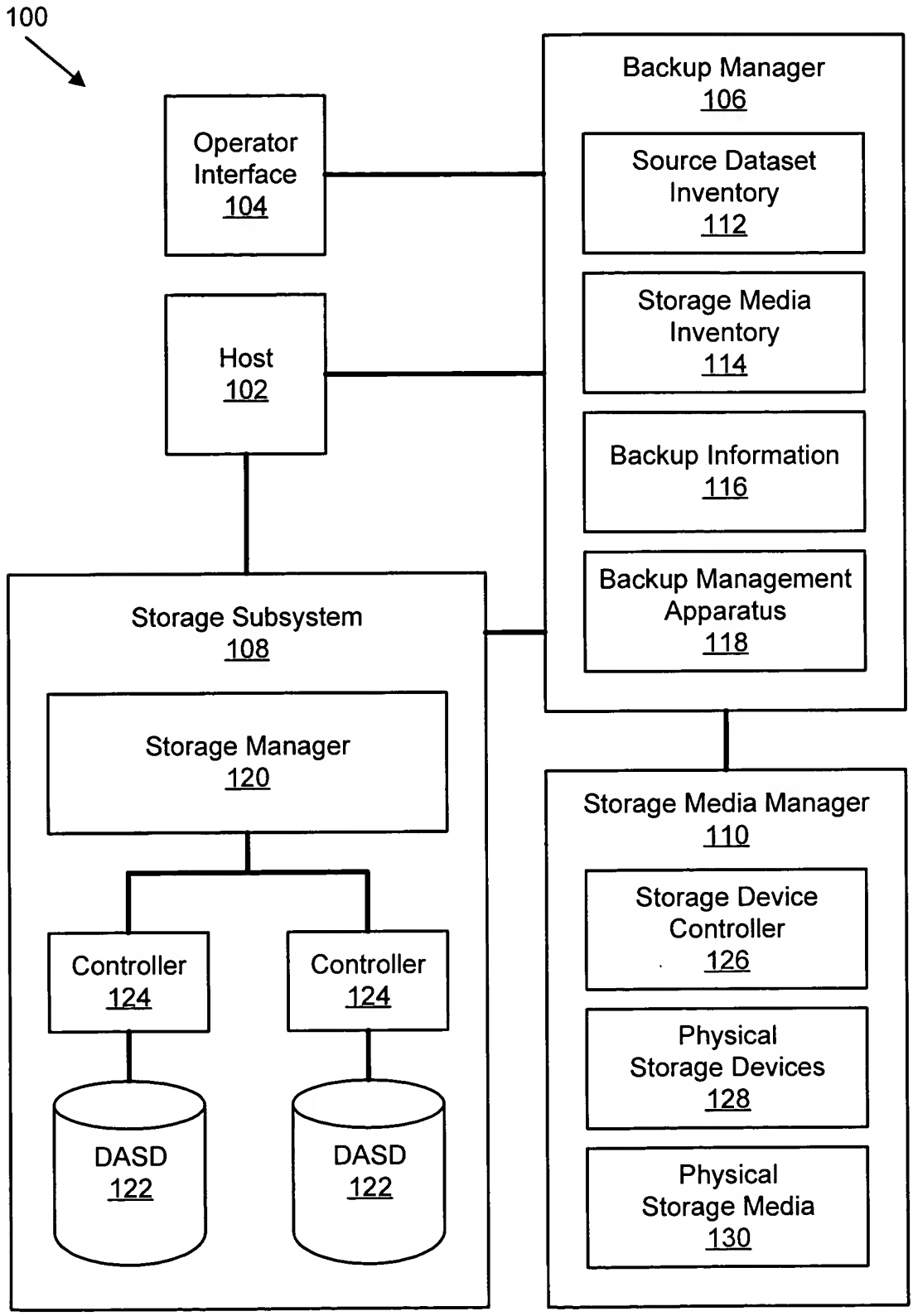
100
Backup Manager
106
Operator Interface
104
Source Dataset Inventory
112
Storage Media Inventory
114
Host
102
Backup Information
116
Backup Management Apparatus
118
Storage Subsystem
108
Storage Manager
120
Storage Media Manager
110
Storage Device Controller
126
Controller
124
Controller
124
Physical Storage Devices
128
Physical Storage Media
130
DASD
122
DASD
122

FIG. 1

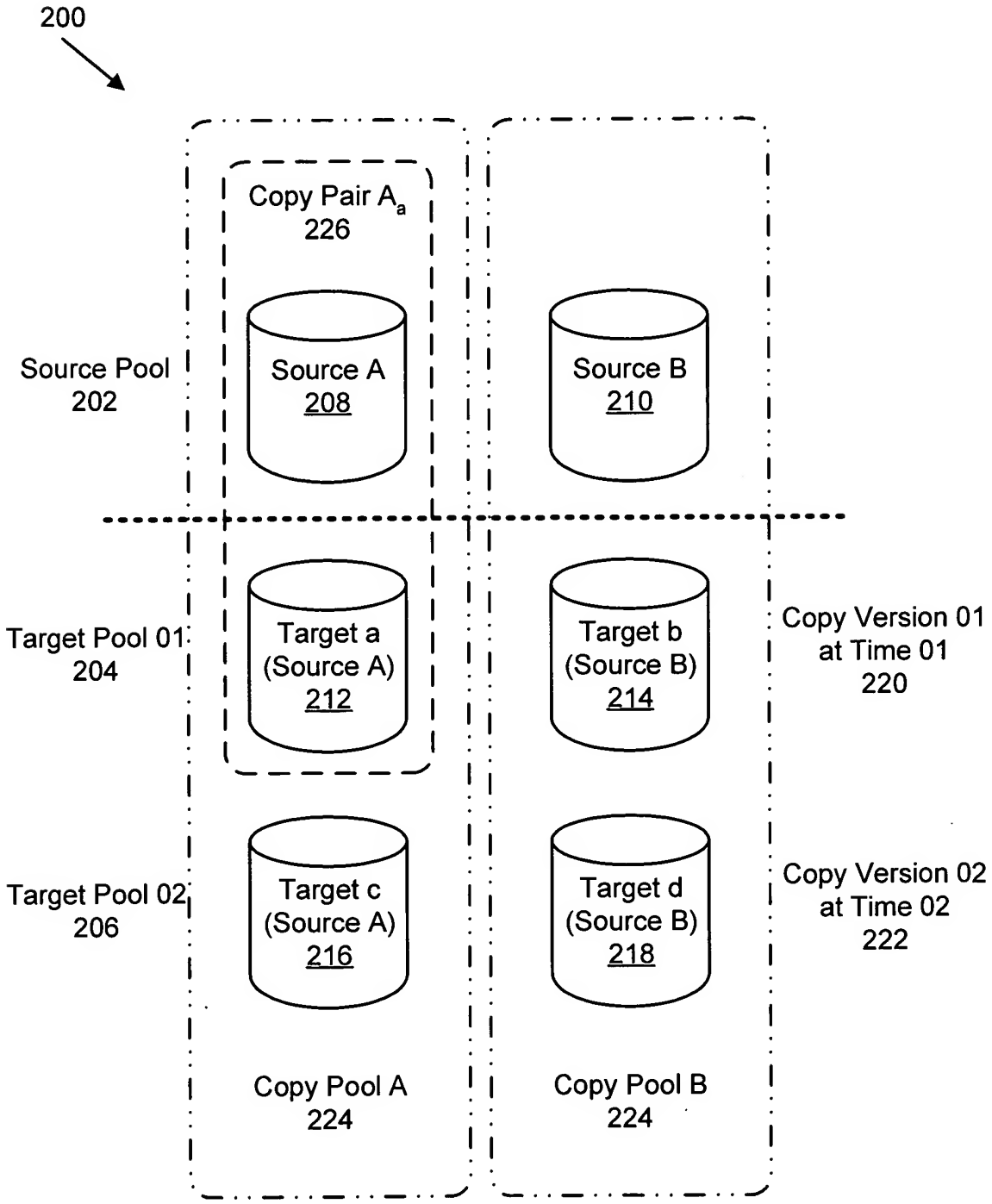
200
Copy Pair A_a
226
Source A
208
Source B
210
Source Pool
202
Target a
(Source A)
212
Target b
(Source B)
214
Target Pool 01
204
Copy Version 01
at Time 01
220
Target c
(Source A)
216
Target d
(Source B)
218
Target Pool 02
206
Copy Version 02
at Time 02
222
Copy Pool A
224
Copy Pool B
224

FIG. 2

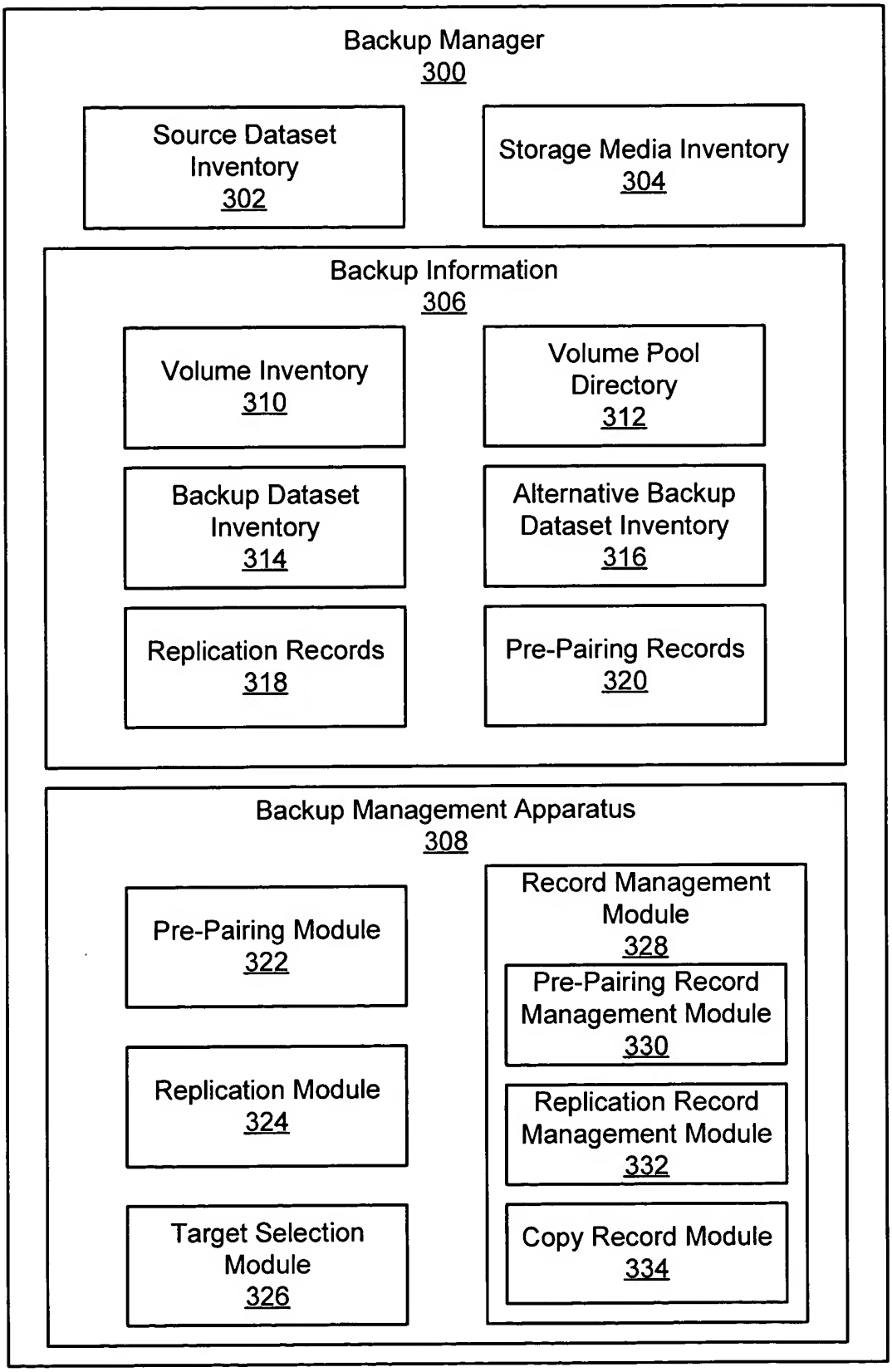
Backup Manager
300
Source Dataset Inventory
302
Storage Media Inventory
304
Backup Information
306
Volume Inventory
310
Volume Pool Directory
312
Backup Dataset Inventory
314
Alternative Backup Dataset Inventory
316
Replication Records
318
Pre-Pairing Records
320
Backup Management Apparatus
308
Pre-Pairing Module
322
Replication Module
324
Target Selection Module
326
Record Management Module
328
Pre-Pairing Record Management Module
330
Replication Record Management Module
332
Copy Record Module
334

FIG. 3

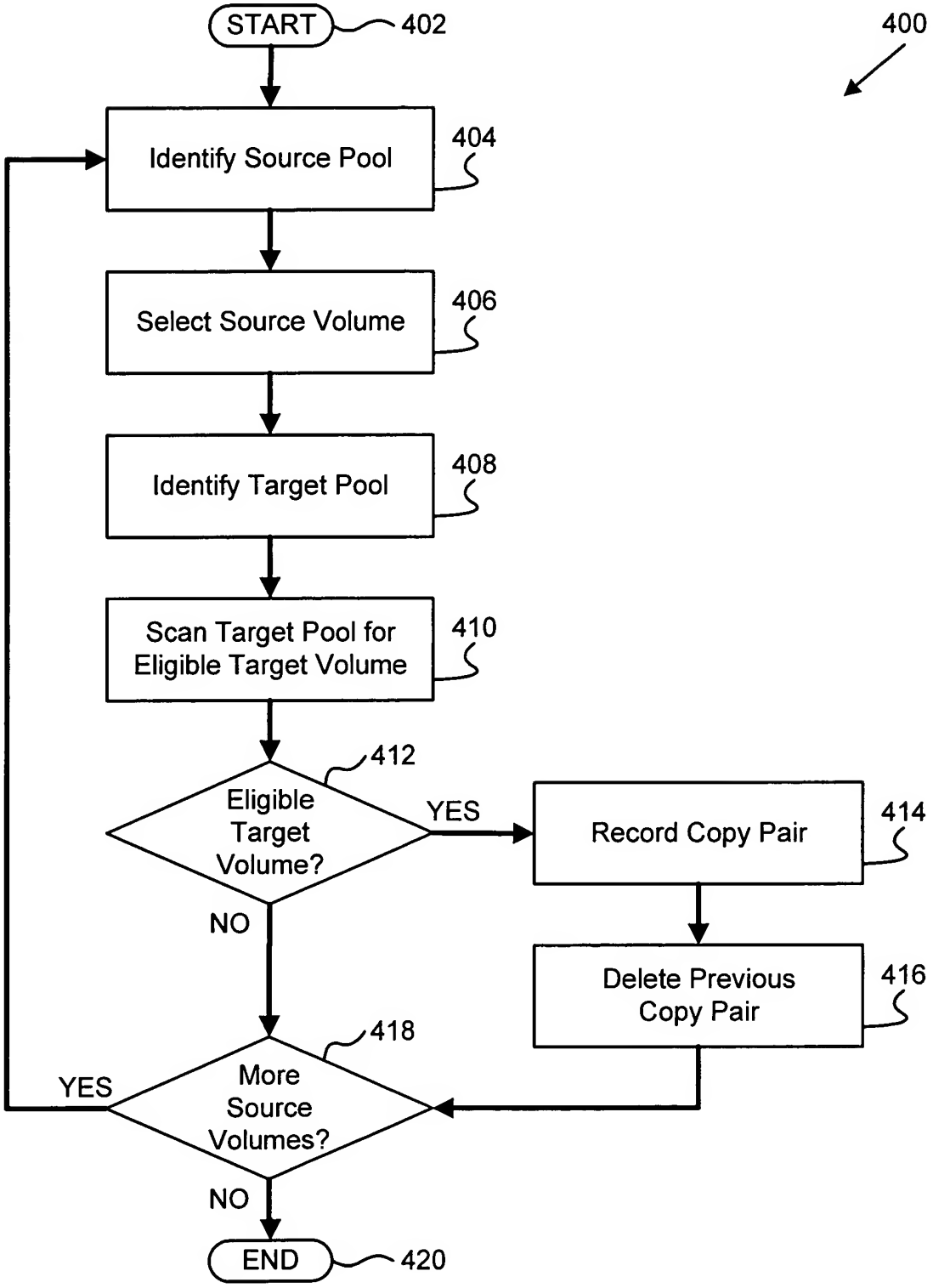
START
402
400
Identify Source Pool
404
Select Source Volume
406
Identify Target Pool
408
Scan Target Pool for Eligible Target Volume
410
412
Eligible Target Volume?
YES
Record Copy Pair
414
NO
Delete Previous Copy Pair
416
418
YES
More Source Volumes?
NO
END
420

FIG. 4

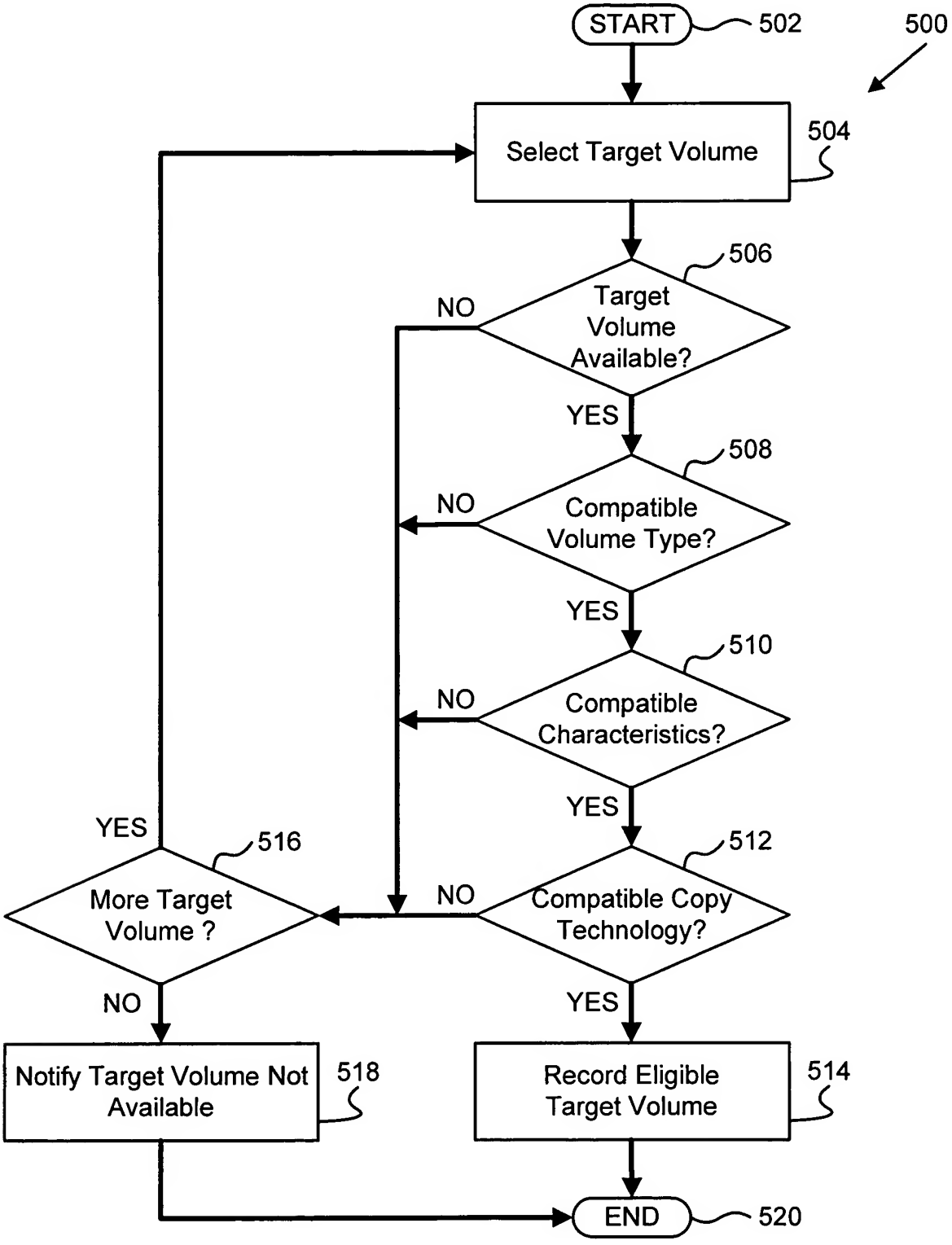
START
502
500
Select Target Volume
504
506
Target Volume Available?
NO
YES
508
Compatible Volume Type?
NO
YES
510
Compatible Characteristics?
NO
YES
512
Compatible Copy Technology?
NO
YES
516
More Target Volume ?
YES
NO
Notify Target Volume Not Available
518
Record Eligible Target Volume
514
END
520

FIG. 5

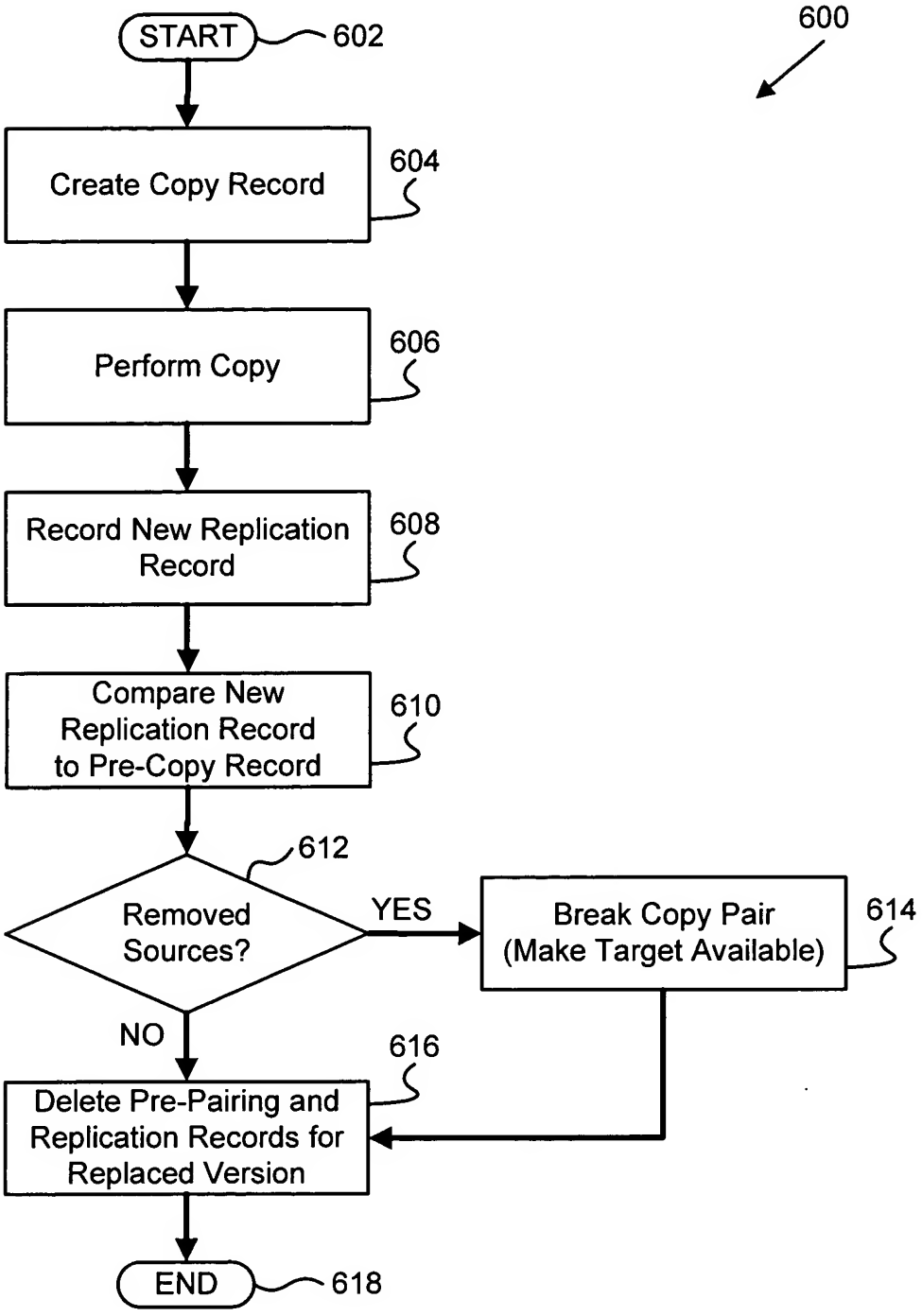
600
START
602
Create Copy Record
604
Perform Copy
606
Record New Replication Record
608
Compare New Replication Record to Pre-Copy Record
610
612
Removed Sources?
YES
Break Copy Pair (Make Target Available)
614
NO
616
Delete Pre-Pairing and Replication Records for Replaced Version
END
618

FIG. 6

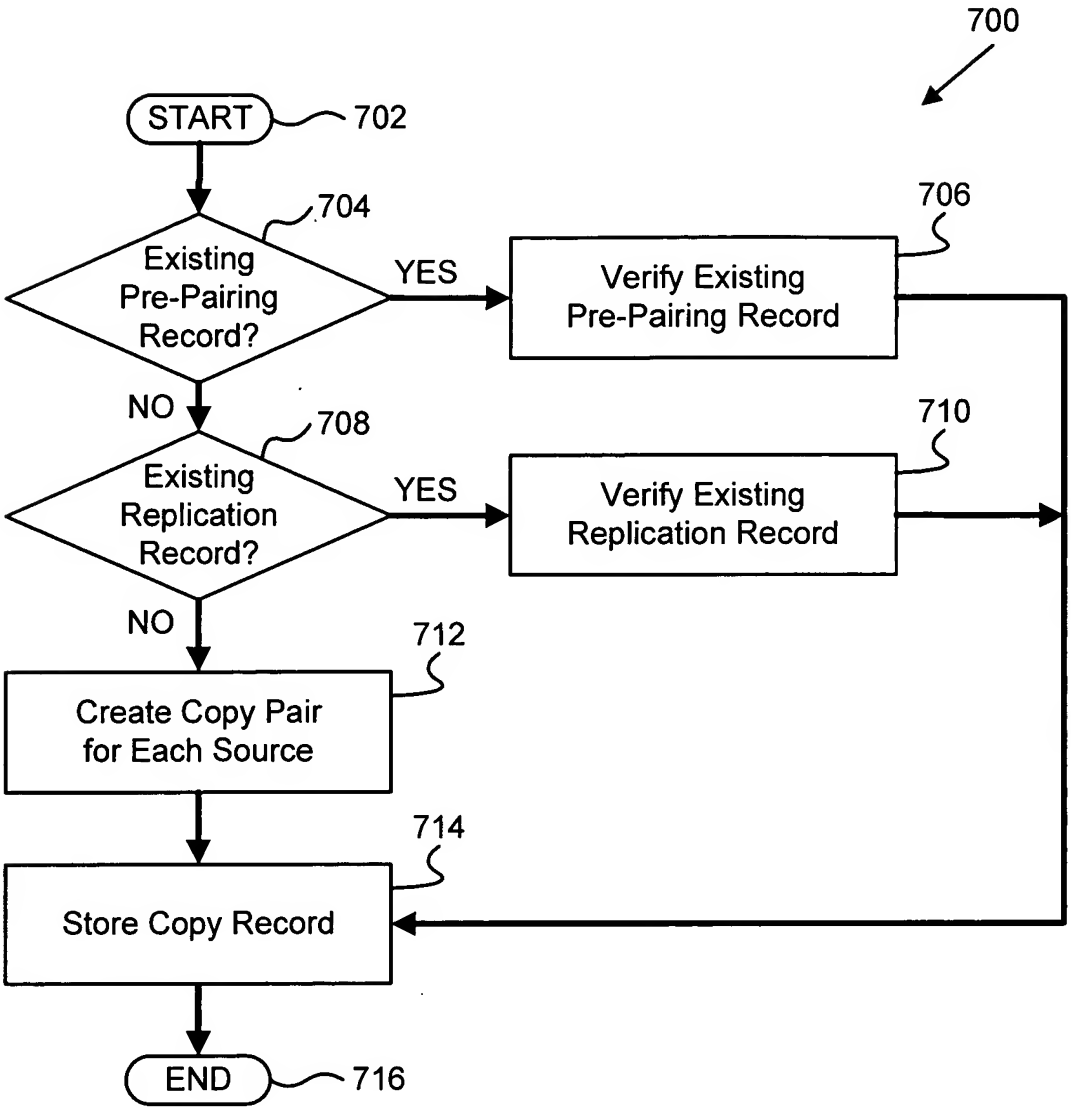
700
START
702
704
Existing Pre-Pairing Record?
YES
706
Verify Existing Pre-Pairing Record
NO
708
Existing Replication Record?
YES
710
Verify Existing Replication Record
NO
712
Create Copy Pair for Each Source
714
Store Copy Record
END
716

FIG. 7

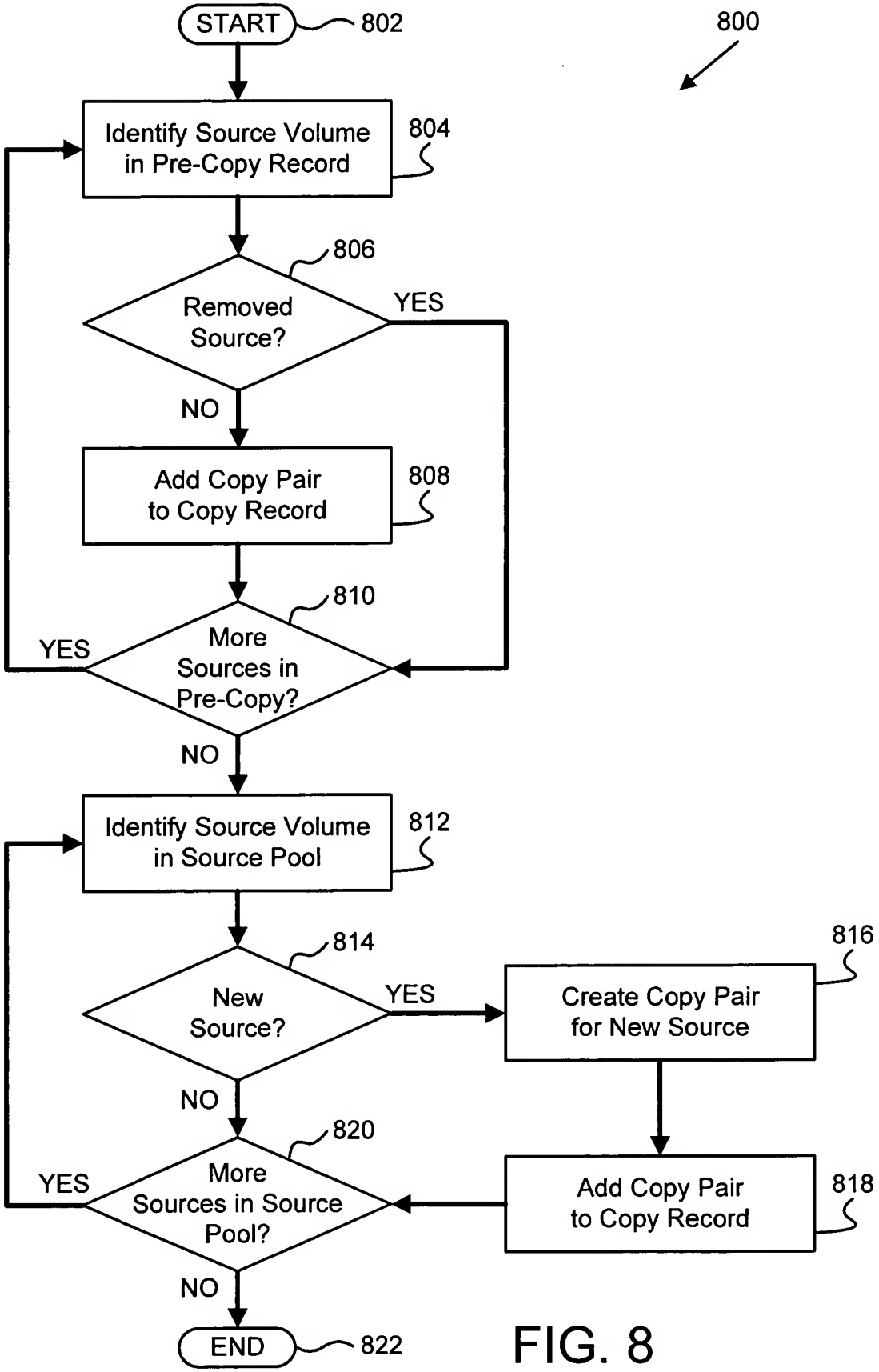
START
802
800
Identify Source Volume in Pre-Copy Record
804
806
Removed Source?
YES
NO
Add Copy Pair to Copy Record
808
810
More Sources in Pre-Copy?
YES
NO
Identify Source Volume in Source Pool
812
814
New Source?
YES
816
Create Copy Pair for New Source
NO
820
More Sources in Source Pool?
YES
Add Copy Pair to Copy Record
818
NO
END
822

FIG. 8